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Monitoring the Atmospheric Boundary-Layer in the Arctic (MABLA) at Gufuskálar, Iceland

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At Gufuskálar, at the foothills of Mt. Snæfellsjökull close to the tip of Snæfellsnes peninsula, W-Iceland, an extensive project to montitor the state of the atmospheric boundary layer was started in August 2008. The observations consist of observations of winds, temperature and humidity at 10, 40, 100, 200 and 400 m.a.g.l., low-level turbulent fluxes and longwave and shortwave radiation. The installation is already completed at 10 and 40 metres, and is expected to be completed up to 400 metres in 2009.

The aim of the Gufuskálar observations is not only to monitor climate changes in the boundary layer, but also to describe the boundary-layer up to 400 meters in different conditions, such as in downslope windstorms, blockings and in corner winds.

The Gufuskálar station is close to the celebrated Stykkishólmur weather station which has continuous temperature records for about 150 years.